

75-06-05

PTO/SB/21 (01-03)

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<p style="text-align: center;">TRANSMITTAL FORM</p> <p style="text-align: center;">(to be used for all correspondence after initial filing)</p> <p style="text-align: center;">MAY 05 2003</p> <p style="text-align: center;">PATENT & TRADEMARK OFFICE</p>		Application Number	10/037,966
		Filing Date	12/21/2001
		First Named Inventor	Painter
		Art Unit	2874
		Examiner Name	Daniel E Valencia
		Total Number of Pages in This Submission	16

#5
TP
5/8/03

ENCLOSURES (Check all that apply)			
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Remarks</div> <p>- Form PTO/SB/96 Statement under 37 CFR 3.73(b) - copies of three (3) assignments - postcard receipt</p>			

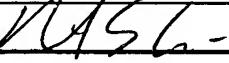
TECHNICAL INFORMATION
CROSS-REFERENCE
COURT PRACTICE
EFFECTIVE DATE
CANCELLATION

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual	David S Alavi Reg No 40310
Signature	
Date	05/05/2003

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date: Express Mail 05/05/2003

Typed or printed	David S Alavi Reg No 40310
Signature	
	Date 05/05/2003

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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Docket No. CQC14NP

Mail Label No. EU715559594US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Painter et al
Filed: 12/21/2001
App. No.: 10/037,966
For: Multi-layer dispersion-engineered
waveguides and resonators

Art Unit: 2874
Examiner: Daniel E. Valencia

Electon
KJ
5/8/03

ELECTION UNDER 37 CFR §§1.141 AND 1.146
INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

05/05/2003

Sir:

In response to the Office Action dated 02/03/2003 (requirement for restriction), Applicant hereby elects Group I (Claims 1-74) for further examination. Applicant further elects Species 4 (Claims 12-15 and 16-22) for further examination if no generic claim is held allowable. Examiner has asserted that Claims 1 and 23 are generic. Applicant presumes that Claims 2-4, 24-27, 47-59, and 63, which are not recited in the restriction requirement as belonging to one of the enumerated species, shall remain under examination even if neither of Claims 1 and 23 is held allowable.

Examiner has stated (regarding Species 4) that: "A fourth embodiment represented by Claims 12 and 16-20 is drawn towards an optical device that can vary optical loss based on a control signal." Applicant respectfully points out that the Claims in question each recite a varying control signal resulting in "at least one of varying optical loss and varying modal-index". Applicant presumes that Claims 13-15 (dependent on Claim 12) and Claims 21-22 (dependent on Claim 20) shall be included in elected Species 4.

A one-month shortened statutory period for reply expired on 03/03/2003. Since 05/03/2003 was a Saturday, the present election is timely filed on Monday 05/05/2003 accompanied by a petition for a two-month extension-of-time and the required fee therefor.

An Information Disclosure Statement (IDS) is submitted herewith, along with photocopies of the references cited therein. The IDS has been submitted within the time limits set forth in 37 CFR §1.97(b) (i.e., before the mailing of a first Office Action on the merits).

Copies of a new power-of-attorney (Form PTO/SB/81), statement under 37 CFR §3.73(b) (Form PTO/SB/96), and three assignments are enclosed herewith. Please note the change of Customer Number and correspondence address.

Any questions regarding this election or IDS submission should be directed to the contact information set forth below. Applicant anticipates a first Office Action on the merits in due course.

Respectfully submitted,



David S. Alavi	Reg. No. 40,310
3762 West 11th Ave.	541-686-9462 voice
#408	800-853-6150 fax
Eugene, OR 97402	dalavi@northwestpatent.com



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PTO/SB/08A (10-01)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

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U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner
Signature

D. Hale

Date Considered

5/28/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

English language. Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 5

Complete if Known

Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DV		F. Agahi, B. Pezeshki, J. A. Kash, and D. W. Kisker, "Asymmetric Fabry-Perot modulator with a waveguide geometry", Electron. Lett. Vol. 32(3) 210 (1996)	
DV		Carl Arft, Diego R. Yankelovich, Andre Knoesen, Erji Mao, and James S. Harris Jr., "In-line fiber evanescent field electrooptic modulators", Journal of Nonlinear Optical Physics and Materials Vol. 9(1) 79 (2000)	
DV		C. I. H. Ashby, M. M. Bridges, A. A. Allerman, B. E. Hammons, "Origin of the time dependence of wet oxidation of AlGaAs", Appl. Phys. Lett. Vol. 75(1) 73 (1999)	
DV		W. G. Bi and C. W. Tu, "Bowing parameter of the band-gap energy of GaNxAs1-x", Appl. Phys. Lett. Vol. 70(12) 1608 (1997)	
DV		P. Chavarkar, L. Zhao, S. Keller, A. Fisher, C. Zheng, J. S. Speck, and U. K. Mishra, "Strain relaxation of In _x Ga _{1-x} As during lateral oxidation of underlying AlAs layers", Appl. Phys. Lett. Vol. 75(15) 2253 (1999)	
DV		E. I. Chen, N. Holonyak, Jr., and M. J. Ries, "Planar disorder- and native-oxide-defined photopumped AlAs-GaAs superlattice minidisk lasers", J. Appl. Phys. Vol. 79(11) 8204 (1996)	
DV		K. D. Choquette, K. M. Geib, C. I. H. Ashby, R. D. Tweten, O. Blum, H. Q. Hou, D. M. Follstaedt, B. E. Hammons, D. Mathes, and R. Hull, "Advances in selective wet oxidation of AlGaAs alloys", IEEE Journal of Selected Topics in Quantum Electronics Vol. 3(3) 916 (1997)	
DV		R. H. Horng, D. S. Wuu, S. C. Wei, M. F. Huang, K. H. Chang, P. H. Liu, and K. C. Lin, "AlGaN/Pt/AuBe/glass light emitting diodes fabricated by wafer-bonding technology", Appl. Phys. Lett. Vol. 75(2) 154 (1999)	
DV		D.L. Huffaker, H. Deng, Q. Deng, and D.G. Deppe, "Ring and stripe oxide-confined vertical-cavity surface-emitting lasers", Appl. Phys. Lett., Vol. 69(23), 3477 (1996)	
DV		B. Koley, F. G. Johnson, O. King, S. S. Saini, and M. Dagenais, "A method of highly efficient hydrolytic oxidation of III-V semiconductor lattice matched to indium phosphide", Appl. Phys. Lett. Vol. 75(9) 1264 (1999)	
DV		M. Kondow, T. Kitatani, S. Nakatsuka, M. C. Larson, K. Nakahara, Y. Yazawa, M. Okai, and K. Uomi, "GainNAs: A novel material for long-wavelength semiconductor lasers", IEEE Journal of Selected Topics in Quantum Electronics, Vol 3(3), 719 (1997)	

Examiner
SignatureDate
Considered

5/29/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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MAY 05 2003

TRADEMARK OFFICE

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Sheet 3 of 5

Complete if Known

Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
DV		B.A. Little, S.T. Chu, H. A. Haus, J. Foresi, and J.-P. Laine, "Microring channel dropping filters", J. Lightwave Technology Vol. 15 998 (1997)	
DV		Y. Luo, D. C. Hall, L. Kou, L. Steingart, J. H. Jackson, O. Blum, and H. Hou, "Oxidized Al _x Ga _{1-x} As heterostructures planar waveguides", Appl. Phys. Lett. Vol. 75(20) 3078 (1999)	
DV		M. H. MacDougal, P. D. Dapkus, A. E. Bond, C.-K. Lin, and J. Geske, "Design and fabrication of VCSEL's with Al _x O _y -GaAs DBR's", IEEE Journal of Selected Topics in Quantum Electronics Vol. 3(3) 905 (1997)	
DV		M. H. MacDougal, P. D. Dapkus, "Wavelength shift of selectively oxidized Al _x O _y -AlGaAs-GaAs distributed Bragg reflectors", IEEE Photonics Tech. Lett. Vol. 9(7) 884 (1997)	
DV		R. L. Naone and L. A. Coldren, "Surface energy model for the thickness dependence of the lateral oxidation of AlAs", J. Appl. Phys. Vol. 82(5) 2277 (1997)	
DV		N. Ohnoki, F. Koyama, and K. Iga, "Superlattice AlAs/AlInAs-oxide current aperture for long wavelength InP-based vertical-cavity surface-emitting laser structure", Appl. Phys. Lett. Vol. 73(22) 3262 (1998)	
DV		N. Ohnoki, F. Koyama, and K. Iga, "Super-lattice AlAs/AlInAs for lateral-oxide current confinement in InP-based lasers", J. Crystal Growth Vol. 195 603 (1998)	
DV		R. D. Pechstedt, P. St. J. Russell, T. A. Birks, and F. D. Lloyd-Lucas, "Selective coupling of fiber modes with use of surface-guided Bloch modes supported by dielectric multilayer stacks", J. Opt. Soc. Am. A Vol. 12(12) 2655 (1995)	
DV		R. D. Pechstedt, P. St. J. Russell, "Narrow-band in-line fiber filter using surface-guided Bloch modes supported by dielectric multilayer stacks", J. Lightwave Tech. Vol. 14(6) 1541 (1996)	
DV		B. Pezeshki, J. A. Kash, D. W. Kisker, and F. Tong, "Multiple wavelength light source using an asymmetric waveguide coupler", Appl. Phys. Lett. Vol. 65(2) 138 (1994)	
DV		B. Pezeshki, J. A. Kash, D. W. Walker, and F. Tong, "Wavelength sensitive tapered coupler with anti-resonant waveguides", IEEE Phot. Tech. Lett. Vol. 6(10) 1225 (1994)	TEC 12800

Examiner
Signature*Daniel E Valencia*Date
Considered

5/30/03

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 5

<i>Complete if Known</i>	
Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

EXAMINER'S CITE NUMBER		NON-PATENT LITERATURE DOCUMENTS
Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
DV		B. Pezeshki, F. F. Tong, J. A. Kash, and D. W. Kisker, "Vertical cavity devices as wavelength selective waveguides", J. Lightwave Tech. Vol. 12(10) 1791 (1994)
DV		B. Pezeshki, J. A. Kash, and F. Agahi, "Waveguide version of an asymmetric Fabry-Perot modulator", Appl. Phys. Lett. Vol. 67(12) 1662 (1995)
DV		H. Saito, T. Makimoto, and N. Kobayashi, "MOVPE growth of strained InGaAsN/GaAs quantum wells", J. Crystal Growth, Vol. 195 416 (1998)
DV		I.-H. Tan, C. Reaves, A. L. Holmes Jr., E. L. Hu, J. E. Bowers, and S. DenBaars, "Low-temperature bonding of III-V semiconductors", Electronics Letters 31 588 (1995)
DV		H. Wada and T. Kamijoh, "Effects of heat treatment on bonding properties in InP-to-Si direct wafer bonding", Japanese Journal of Applied Physics Part 1 33 4878 (1994)
DV		H. Wada, T. Kamijoh, and Y. Ogawa, "Direct bonding of InP to different materials for optical devices", Proceedings of the 3rd International Symposium on Semiconductor Wafer Bonding Science, Technology, and Applications, 95-97 579, The Electrochemical Society (Pennington NJ, 1995)
DV		H. Wada and T. Kamijoh, "Room-temperature cw operation of InGaAsP lasers on Si fabricated by wafer bonding", IEEE Photonics Technology Letters 8 173 (1996)
DV		H. Wada and T. Kamijoh, "Wafer bonding of InP to Si and its application to optical devices", Japanese Journal of Applied Physics Part 1 37 1383 (1998)
DV		Z. J. Wang, S.-J. Chua, F. Zhou, W. Wang, and R. H. Wu, "Buried heterostructures InGaAsP/InP strain-compensated multiple quantum well laser with a native-oxidized InAlAs current blocking layer", Appl. Phys. Lett. Vol 73(26) 3803 (1998)

Examiner
Signature

D. Vali

Date
Considered

5/30/03

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 5 of 5

<i>Complete if Known</i>	
Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Signature		Date Considered	5/30/03
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AUTHORIZATION OF AGENT**

Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Title	MULTI-LAYER DISPERSION-ENGINEERED WAVEGUIDES AND RESONATORS
Group Art Unit	
Examiner Name	
Attorney Docket Number	CQC14NP

I hereby appoint:

 Practitioners at Customer Number

36394



OR

 Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

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 Practitioners at Customer Number

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Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

 Applicant/Inventor. Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

SIGNATURE of Applicant or Assignee of Record

Name

Jeffrey S. Richier, President and CEO, Xponent Photonics Inc.

Signature

Date

4-1-2003

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

 *Total of 1 forms are submitted.

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COPY

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Xponent Photonics, Inc.Application No./Patent No.: 10/037,966 Filed/Issue Date: 12/21/2001Entitled: MULTI-LAYER DISPERSION-ENGINEERED WAVEGUIDES AND RESONATORS

Xponent Photonics, Inc. , a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

- the assignee of the entire right, title, and interest; or
- an assignee of less than the entire right, title and interest.
The extent (by, percentage) of its ownership interest is _____ %

in the patent application/patent identified above by virtue of either:

A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
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2. From: _____ To: _____
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The document was recorded in the United States Patent and Trademark Office at
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Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

4-1-2003

Date

Jeffrey S. Rittichier

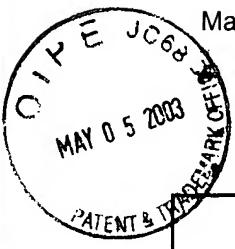
Typed or printed name

Signature

President and CEO, Xponent Photonics Inc.

Title

COPY



ASSIGNMENT OF APPLICATION

Docket Number (Optional)
CQC14NP

Whereas, I/We, Oskar J. Painter of Pasadena, CA, hereafter referred to as applicant, have invented certain new and useful improvements in Multi-layer dispersion-engineered waveguides and resonators

for which an application for a United States Patent was filed on 12/21/2001
Application Number 10 / 037,966

for which an application for a United States Patent was executed on _____

Whereas, Xponent Photonics Inc of Monrovia, CA herein referred to "assignee" whose mailing address is 425 East Huntington Drive, Monrovia, CA 91016 is desirous of acquiring the entire right, title and interest in the same;

Now, therefore, in consideration of the sum of ten dollars (\$ 10), the receipt whereof is acknowledged, and other good and valuable consideration, I/We, the applicant(s), by these presents do sell, assign and transfer unto said assignee the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to any and all Patents which may be granted therefor in the United States, I/We hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

Executed this 19th day of MARCH, 2003.
at Monrovia, California

(Signature)

State of CALIFORNIA SS:
County of Los Angeles

Before me personally appeared said OSKAR PAINTER

and acknowledged the foregoing instrument to be his act and deed on the 19th day of MARCH, 2003.



Seal

Note: Signatures of all the inventors or assignees or record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required. See below*.

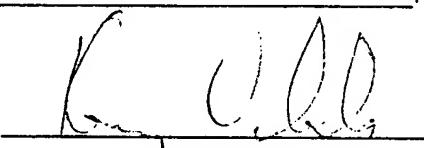
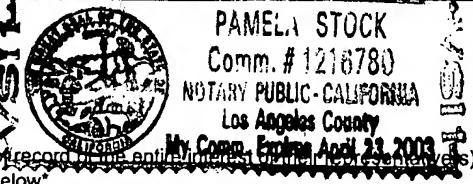
* Total of 3 forms are submitted.

This form offers a sample or suggested format for an assignment document. This sample form is not an OMB officially approved form.

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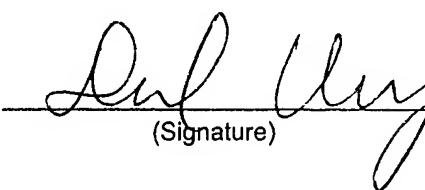


Sample Form (former PTO/SB/15) (05-01)

ASSIGNMENT OF APPLICATION		Docket Number (Optional) CQC14NP
<p>Whereas, I/We, <u>Kerry J. Vahala</u> of <u>San Gabriel, CA</u>, hereafter referred to as applicant, have invented certain new and useful improvements in <u>Multi-layer dispersion-engineered waveguides and resonators</u></p> <p><input checked="" type="checkbox"/> for which an application for a United States Patent was filed on <u>12/21/2001</u> Application Number <u>10 / 037,966</u>.</p> <p><input type="checkbox"/> for which an application for a United States Patent was executed on _____, and</p> <p>Whereas, <u>Xponent Photonics Inc</u> of <u>Monrovia, CA</u> herein referred to "assignee" whose mailing address is <u>425 East Huntington Drive, Monrovia, CA 91016</u> is desirous of acquiring the entire right, title and interest in the same;</p> <p>Now, therefore, in consideration of the sum of <u>ten</u> dollars (<u>\$ 10</u>), the receipt whereof is acknowledged, and other good and valuable consideration, I/We, the applicant(s), by these presents do sell, assign and transfer unto said assignee the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to any and all Patents which may be granted therefor in the United States, I/We hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.</p> <p>Executed this <u>11st</u> day of <u>MARCH</u>, 20<u>03</u>, at <u>MONROVIA, CALIFORNIA</u>.</p> <p> (Signature)</p> <p>State of <u>CALIFORNIA</u> County of <u>LOS ANGELES</u> SS: _____</p> <p>Before me personally appeared said <u>KERRY VAHALA</u> and acknowledged the foregoing instrument to be his free act and deed this <u>11st</u> day of <u>MARCH</u>, 20<u>03</u>.</p> <p> PAMELA STOCK Comm. #1210780 NOTARY PUBLIC - CALIFORNIA Los Angeles County (Notary Public)</p> <p>Note: Signatures of all the inventors or assignees of record (if the entire instrument is signed by one or more inventors or assignees) are required. Submit multiple forms if more than one signature is required. See below.</p> <p>* <input checked="" type="checkbox"/> Total of <u>3</u> forms are submitted.</p>		

COPY



ASSIGNMENT OF APPLICATION		Docket Number (Optional) CQC14NP
Whereas, I/We, <u>David W. Vernooy</u> of <u>Sierra Madre, CA</u> , hereafter referred to as applicant, have invented certain new and useful improvements in <u>Multi-layer dispersion-engineered waveguides and resonators</u>		
<input checked="" type="checkbox"/> for which an application for a United States Patent was filed on <u>12/21/2001</u> Application Number <u>10 / 037,966</u> .		
<input type="checkbox"/> for which an application for a United States Patent was executed on _____, and		
Whereas, <u>Xponent Photonics Inc</u> of <u>Monrovia, CA</u> herein referred to "assignee" whose mailing address is <u>425 East Huntington Drive, Monrovia, CA 91016</u> is desirous of acquiring the entire right, title and interest in the same;		
Now, therefore, in consideration of the sum of <u>ten</u> dollars (\$ <u>10</u>), the receipt whereof is acknowledged, and other good and valuable consideration, I/We, the applicant(s), by these presents do sell, assign and transfer unto said assignee the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to any and all Patents which may be granted therefor in the United States, I/We hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.		
Executed this <u>17th</u> day of <u>MARCH</u> , 2003. at <u>Monrovia, California</u>		
State of <u>CALIFORNIA</u> County of <u>LOS ANGELES</u> SS:		 (Signature)
Before me personally appeared said <u>DAVID VERNOOY</u> and acknowledged the foregoing instrument to be his free act and deed this <u>17th</u> day of <u>MARCH</u> , 2003.		
Seal		
Note: Signatures of all the inventors or assignees of record of the entire interest in the invention (100%) are required. Submit multiple forms if more than one signature is required. See below*.		
* <input checked="" type="checkbox"/> Total of <u>3</u> forms are submitted.		

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